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GB 1540719
GB 1524448
GB 1502581
GB 1478008
GB 1476354
GB1471886
GB 1459342
GB 1458969
GB 1438948
GB 1431667
GB 1395095
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(54) **A Cleansing Material**

(57) A cleansing material comprises at least one petroleum distillate and at least one surfactant.

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SPECIFICATION

A Cleansing Material

This invention relates to a cleansing material and to a process for producing the cleansing material.

Accordingly, this invention provides a cleansing material comprising at least one petroleum distillate and at least one surfactant.

The cleansing material of the invention may be made in the form of an emulsion so that it may have a jelly-like consistency.

There are many known cleansing materials and they are usually alkaline or acidic and they may also be abrasive. In contrast, the cleansing material of the present invention may be produced to be non alkaline, non-acidic and non-abrasive. It can be used, for example, to remove grease, grime, dirt, ink and paint from a person's hands; from mechanical devices, for example engines; from synthetic and natural fabrics, for example from clothes; and from other surfaces.

The petroleum distillate may be a light mineral oil, a solvent, a hydrocarbon or a saturated or unsaturated vegetable or mineral oil. Preferably the petroleum distillate is kerosene and advantageously odourless kerosene.

The surfactant may be ionic or non-ionic. It may be an alkylarylether, an alkylarylpolyether alcohol, an amine polyglycol condensate, a modified polyethoxy adduct or a modified polyethoxylated straight chain alcohol. Preferably, the surfactant is octylphenoxypolyethoxyethanol.

The cleansing material may include a thickening and/or stabilising agent.

The thickening and/or stabilizing agent may be a cellulose or lanolin. The thickening and/or stabilising agent may also be formed from an acidic emulsion polymer which has been neutralised by a base. The acidic emulsion polymer may be an acidic acrylic emulsion copolymer. The base may be sodium hydroxide.

The cleansing material may include (i) an alcohol such for example as isopropanol and/or (ii) a low boiling hydrocarbon such for example as gasolene. When the cleansing material includes an alcohol and/or a low boiling hydrocarbon, the cleansing material may be especially useful for degreasing fabrics and mechanical devices such for example as engines.

Any hydrocarbon present in the cleansing material may be present as a halogenated hydrocarbon, for example as a chlorine, bromine or iodine hydrocarbon. The use of the halogenated hydrocarbon may make the cleansing material especially useful for cleaning synthetic and natural fabrics, for example removing grease or stains from the fabrics.

Embodiments of the invention will now be described for the purpose of illustration only and with reference to the accompanying Examples.

Example 1

A cleansing material was made from the following compounds:

Water	32.16
ASE-60 (acid containing cross linked acrylic emulsion copolymer)	3.34
Triton X-100 (octylphenoxy-polyethoxyethanol)	10.00
Odourless Kerosene	40.00
Light Mineral Oil	10.00
Sodium hydroxide (10%)	pH 6.5—7.5.

The ingredients are added in order whilst stirring.

The kerosene and oil are added under high shear mixing. The mixing took place over 40—60 minutes. The ASE-60 and the Triton X-100 are supplied by Rohm & Haas Company Ltd.

The reactions in producing the cleansing material are physical in emulsifying the petroleum distillate or petroleum distillates, and chemical in the thickening and/or stabilising action.

The cleansing material of the invention may be provided with emollients such for example as dyes and/or perfumes.

In order to clean hands having grease, dirt, ink stains or paint, the cleansing material can be rubbed vigorously into the hands. The hands can then be washed with water. If water is not available, the cleansing material can just be wiped off the hands.

Exampl 2

A cleansing material was made from the following compounds:

Water	32.2
ASE-60 (acid containing linked acrylic emulsion copolymer)	0.2
Isopropanol	10.0
Surfactant, e.g. Triton X-100 (octylphenoxy-polyethoxyethanol)	10.6
Gasolene	14.4
Kerosene	33.6
Sodium Hydroxide (25%)	to pH 8.

The isopropanol replaces some of the water used in Example 1 above, and the gasolene replaces part of the kerosene.

The cleansing material is prepared by adding the ingredients in the order listed.

The resultant mixture is a low viscosity stable emulsion which when sprayed under pressure onto a heavily greased of other greasy mechanical device is effective to quickly dissolve/emulsify the grease. The dissolved/emulsified grease can then be washed away, for example using a pressure hose or an ordinary garden hose, to leave the engine or other device in a very clean condition. No other cleansing agents such for example as soaps or detergents are required.

Example 3

A cleansing material was made from the following compounds:

Halogenated hydrocarbon	48.0
Alcohol	4.0
Ionic Surfactant	1.0
ASE 60 (acid containing linked acrylic emulsion copolymer)	3.0
Ammonium hydroxide	1.5
Water	42.0
emollients	0.5

The halogenated hydrocarbon is advantageously trichloroethylene or trichloroethane.

The halogenated hydrocarbon, the alcohol and the ionic surfactant are mixed together to form an emulsion. The water and the ASE 60 are mixed together separately from the emulsion. The mixed water and the ASE 60 are then added to the emulsion whilst the emulsion is vigorously stirred. The ammonium hydroxide can be added to the stirred emulsion to neutralise the ASE 60 and to produce a spontaneous thickening of the emulsion. A stable thick emulsion may thus be formed and the entire process may be completed in 40 minutes.

The stable thick emulsion is especially advantageous for cleaning spots off of fabrics. The spots may be greasy or non-greasy and the fabrics may be natural or synthetic fabrics.

It is to be appreciated that the above Examples have been given for illustrative purposes only and that modifications may be effected. Thus, for example, the cleaning compositions may be used to remove grease from fabrics.

Claims

1. A cleansing material comprising at least one petroleum distillate and at least one surfactant.
2. A cleansing material according to claim 1 which is in the form of an emulsion so that it has a jelly-like consistency.
3. A cleansing material according to claim 1 or claim 2 in which the petroleum distillate is a light mineral oil, a solvent, a hydrocarbon or a saturated or unsaturated vegetable or mineral oil.
4. A cleansing material according to claim 3 in which the petroleum distillate is kerosene.
5. A cleansing material according to claim 4 in which the kerosene is odourless kerosene.
6. A cleansing material according to any one of the preceding claims in which the surfactant is ionic or nonionic.
7. A cleansing material according to any one of the preceding claims in which the surfactant is an alkylarylether, an alkylarylpolyether alcohol, an amine polyglycol condensate, a modified polyethoxy adduct or a modified polyethoxylated straight chain alcohol.
8. A cleansing material according to claim 7 in which the surfactant is octylphenoxypolyethoxyethanol.
9. A cleansing mat rial according to any one of the prec ding claims including a thickening and/or stabilising agent.
10. A cleansing material according to claim 9 in which th thickening and/or stabilising agent is a cellulos or lanolin.

11. A cleansing material according to claim 9 in which the thickening and/or stabilising agent is formed from an acidic emulsion polymer which has been neutralised by a base.

12. A cleansing material according to claim 11 in which the acidic emulsion polymer is an acidic acrylic emulsion copolymer.

13. A cleansing material according to claim 11 or claim 12 in which the base is sodium hydroxide.

14. A cleansing material according to any one or the preceding claims in which the cleansing material includes an alcohol and/or a low boiling hydrocarbon.

15. A cleansing material according to claim 14 in which the alcohol is isopropanol.

16. A cleansing material according to claim 14 or claim 15 in which the low boiling hydrocarbon is gasoline.

17. A cleansing material according to any one of the preceding claims including a halogenated hydrocarbon.

18. A cleansing material according to claim 17 in which the halogenated hydrocarbon is a chlorine, bromine or iodine hydrocarbon.

19. A cleansing material according to claim 18 in which the halogenated hydrocarbon is trichloroethylene or trichloroethane.

20. A cleansing material substantially as herein described with reference to Examples 1, 2 or 3.

21. A process for producing a cleansing material, substantially as herein described with reference to Examples 1, 2 or 3.

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